

Pine straw has several characteristics that make it superior in many ways to other native, organic mulches. Pine bark, for example, floats and will wash out of a bed during an inch or more of rain. Pine needles, on the other hand, interlock and stay in place, even on landscapes that are placed on slopes. Unlike grass clippings and leaves from native trees, this intermeshing action of pine needles keeps them from being blown out of beds during strong winds.

Organic mulches such as leaves, peat moss and grass clippings form crusts on top of the soil that slow the penetration of nutrients, oxygen and moisture to plant root systems. Pine needles, on the other hand, remain loose and open and decompose slowly. This allows water, air and fertilizer to permeate the soil easily. Unlike pine straw, such mulches as bagasse and grass clippings that remain excessively wet during rainy periods can damage plant roots.

Pine straw is also a versatile mulch because it fits into a variety of landscape situations. It's an excellent organic material to use around newly planted annuals like zinnias, marigolds, pansies and snapdragons. Because of its light weight, the tender shoots from bulbs easily push their way through a pine needle covering to reach sunlight for growth and flowering.

Many perennials, including daylilies, shasta daisies, coroeopsis, amaryllis, dahlias, cannas, calla and others, benefit from using a pine needle mulch. The brown tint of pine straw helps to bring out color, contrast and texture in landscapes featuring such popular Louisiana shrubs as camellias, azaleas, hollies, hydrangeas and gardenias.

The use of pine straw as a mulch is expected to increase in popularity among homeowners and landscape professionals as mechanical harvesting and marketing of this natural resource become widespread in Louisiana. And if predictions by forestry experts are on target, this renewable resource — just like our trees — will become big business in our state, producing new jobs and income for many Louisianians.

Funds for this publication were provided by the Louisiana State Department of Agriculture and Forestry; Bob Odom, Commissioner, and USDA - Soil Conservation Service, Horace Austin, State Conservationist, and USDA - A.M.S. Federal/State Marketing Improvement Program.

Thomas E. Pope, Ph.D., Specialist
(Landscape Architecture)

Louisiana State University Agricultural Center,
H. Rouse Caffey, Chancellor
Louisiana Cooperative Extension Service,
Denver T. Loupe, Vice-Chancellor and Director

Pub. 2387 (22M) 4/91 Rev.

Issued in furtherance of Cooperative Extension work, Acts of Congress of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. Louisiana Cooperative Extension Service follows a nondiscriminatory policy in programs and employment.

Pine Straw: *Mother Nature's* *Mulch*



Louisiana Department of
Agriculture and Forestry

Pine Straw:

Mother Nature's

Mulch

Pine straw is a very attractive brown mulch that can be used in a variety of landscape situations, and many of its qualities are superior to the various mulches in use today.

This organic material has always been a popular mulch with consumers who have pine trees. Its application by professional landscapers, however, has been limited because the straw had to be hand-gathered.

Now that pine straw can be harvested and baled mechanically, its cost and availability make it an economical and practical mulch. The price is extremely cost-effective when the qualities of pine straw are compared to other mulches. In fact, using the recommended application rates can save up to 50 percent of the cost of more traditional mulches.

But why use a mulch at all, especially since this organic material doesn't contribute directly to plant growth? Well, mulches act as a catalyst in creating favorable growing conditions for plants. In other words, they help create the necessary environment that stimulates healthy plant development.

Pine needles are a favorite with many consumers because they save time in landscape

maintenance. Many landscape professionals prefer pine straw because it promotes uniform plant growth and gradually decomposes to release organic nutrients that enrich the soil.

Let's check off some of the reasons pine straw makes an excellent mulch.

✓ Pine needles enhance the beauty of any landscape by providing a cover of uniform color that is neutral and non-detracting to plants. They also add an interesting texture to an otherwise drab landscape surface. Pine straw conserves soil moisture by reducing water evaporation from the soil.

✓ Weed and grass problems are fewer when the straw is applied deep enough to smother unwanted plants and prevent undesirable seed germination. It also keeps wind and rain from washing or blowing away the topsoil. Soil crusting problems are prevented, and moisture is able to reach the roots of plants.

✓ A good mulch like pine straw also insulates the soil to provide a more uniform temperature. As a result the root system and lower stems of plants stay cooler in warm weather and remain warmer in cool weather. A layer of this mulch also helps to keep the roots of tender plants from freezing.

✓ Pine needles protect plants from soil-borne diseases by keeping off mud splatters caused by rain and watering. And, a covering of pine straw also helps to eliminate soil compaction resulting from hard rains.



Pine straw is used in the landscape during planting, and the best time for setting out ornamental trees and shrubs is in the late fall. October and November are the ideal months for these woody plants. Flower plantings or nursery stock grown in containers, however, may be planted at any time of the year as long as adequate water is provided.

New landscapes or mulched established plantings require an application of about a half-pound of pine needles per square foot. A 25-pound or three-cubic foot bale, for example, covers about 50 square feet, and a 50-pound bale covers an area twice this size.

The straw is spread to a three-inch depth. This will allow the pine needles to settle to a thickness of one-and-a-half inches. Each succeeding year the bed should be refurbished by adding a quarter-pound of pine straw per square foot. This gives an inch covering of new pine needles and keeps the mulch at the proper depth required to maintain the bed.